Lingyan Dou

205139086

I had trouble understanding the constructors and how to initialize them. I did some research online in order to get a better understanding. When it comes to actually coding the project, I always messed up the details. I spent an hour debugging the setter function before I realized that I made a logic error in the if-statement and also missed one blank space between the string “Royce Hall”.

I also had trouble building up the test cases(asserts). The asserts provided in the assignment description test the price as a string. I first changed them into doubles. Then I realized by doing that I couldn’t be sure that the price is an int or a double value, so I had to changed it back to string. I learned that price, as a double value, is automatically saved to have 6 digits after the integer part of the value.

Test cases:

Ticket t( "Pavillion Row 13", 45, "Dodgers vs. Brewers", "Dodger Stadium", 150.00, Ticket::ATHLETICGAME, "August 1, 7:30PM" );

BoxOffice b;

t= b.buyRoyceHallStudentTicket( "Orchestra Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30" );

assert( double( t.getPrice() ) == 120.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStudentTicket( "Orchestra Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 120.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStudentTicket( "Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 45.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStudentTicket( "Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30" );

assert( double( t.getPrice() ) == 45.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStaffTicket( "Orchestra Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30" );

assert( double( t.getPrice() ) == 130.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStaffTicket( "Orchestra Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 130.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStaffTicket( "Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 55.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStaffTicket( "Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30" );

assert( double( t.getPrice() ) == 55.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallTicket( "Orchestra Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30" );

assert( double( t.getPrice() ) == 150.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallTicket( "Orchestra Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 150.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallTicket( "Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 75.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallTicket( "Row U", 20, "CS31", Ticket::ATHLETICGAME, "September 1, 7:30" );

assert( double( t.getPrice() ) == 75.000000);

assert( t.getKind() == Ticket::KIND::ATHLETICGAME );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStudentTicket( "Row U", 20, "CS31", Ticket::MOVIE, "September 1, 7:30" );

assert( double( t.getPrice() ) == 10.000000);

assert( t.getKind() == Ticket::KIND::MOVIE);

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStaffTicket( "Orchestra Row U", 20, "CS31", Ticket::MOVIE, "September 1, 7:30" );

assert( double( t.getPrice() ) == 22.500000);

assert( t.getKind() == Ticket::KIND::MOVIE);

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStaffTicket( "Row U", 20, "CS31", Ticket::MOVIE, "September 1, 7:30" );

assert( double( t.getPrice() ) == 11.250000);

assert( t.getKind() == Ticket::KIND::MOVIE );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallTicket( "Row U", 20, "CS31", Ticket::MOVIE, "September 1, 7:30" );

assert( double( t.getPrice() ) == 12.500000);

assert( t.getKind() == Ticket::KIND::MOVIE );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStudentTicket( "Row U", 20, "CS31", Ticket::CONCERT, "September 1, 7:30" );

assert( double( t.getPrice() ) == 20.000000);

assert( t.getKind() == Ticket::KIND::CONCERT);

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStudentTicket( "Orchestra Row U", 20, "CS31", Ticket::CONCERT, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 100.000000);

assert( t.getKind() == Ticket::KIND::CONCERT);

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStaffTicket( "Row U", 20, "CS31", Ticket::CONCERT, "September 1, 7:30" );

assert( double( t.getPrice() ) == 30.000000);

assert( t.getKind() == Ticket::KIND::CONCERT );

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallTicket( "Row U", 20, "CS31", Ticket::CONCERT, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 65.000000);

assert( t.getKind() == Ticket::KIND::CONCERT);

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStudentTicket( "Row U", 20, "CS31", Ticket::OTHER, "September 1, 7:30" );

assert( double( t.getPrice() ) == 10.000000);

assert( t.getKind() == Ticket::KIND::OTHER);

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30");

t= b.buyRoyceHallStudentTicket( "Row U", 20, "CS31", Ticket::OTHER, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 25.000000);

assert( t.getKind() == Ticket::KIND::OTHER);

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallStaffTicket( "Orchestra Row U", 20, "CS31", Ticket::OTHER, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 90.000000);

assert( t.getKind() == Ticket::KIND::OTHER);

assert( t.getRow() == "Orchestra Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

t= b.buyRoyceHallTicket( "Row U", 20, "CS31", Ticket::OTHER, "September 1, 7:30PM" );

assert( double( t.getPrice() ) == 55.000000);

assert( t.getKind() == Ticket::KIND::OTHER);

assert( t.getRow() == "Row U" );

assert( t.getEvent() == "CS31" );

assert( t.getVenue() == "Royce Hall" );

assert( t.getSeat() == 20 );

assert( t.getDayTime()== "September 1, 7:30PM");

cout << "all tests passed!" << endl ;